REMARKS

Claims 20-21, 24-33 and 36-38 have been rejected under 35 USC 102(b) as anticipated by Barbulescu. The rejection is respectfully traversed for the reasons presented in the amendment filed on June 18, 2003, and for the following reasons.

Barbulescu discloses a well known, normal MAP (maximum a-posteriori probability) algorithm. As discussed in the background of the original specification, the reference "Kanalcodierung Grundlagen und Anwendungen in modernen Kommunikationssystemen" describes a code referred to as a "Trellis" (see Figure 2.2 of Barbulescu). An L-value for each bit is determined as a ratio of the probabilities for "1" respectively "0" (see equation 2.40 of Barbulescu). The calculation of the probabilities in the Trellis is performed by forward and backward recursion with corresponding start values (see figure 2.2 of Barbulescu). The MAP algorithm is a deterministic method for determining the L-values. This means these values are directly calculated. Accordingly, the MAP algorithm causes work handling complex Trellis structures. Hence, the MAP algorithm is usually not used for the linear block codes, referred to in the instant invention.

As discussed in earlier filed amendments, the "target function" in the claimed invention patentably distinguishes over the applied reference- the target function with the bit values to be determined being continuous variables (see, for example, claim 23 β_i in $f(\beta_i)$). Afterwards, L-values are determined by global minimization of the target function (e.g. by deviations). Accordingly, the feature "approximating a dependability degree for forming a digital signal value from the electrical signal based on said optimized target function" is not disclosed by Barbulescu. The original specification clearly defines this limitation, for example, in the fourth, fifth and ninth paragraphs after "object of the present invention."

Referring to formula 2.40 of Barbulescu, the probability of a bit depends on a function, in which probability ratios are variables. As can be seen from the equation, d_k is a continuous variable of the term on the right side of the equation. This is comparable to equation 17 found in the background section of the instant specification. This results in the problems discussed in the paragraphs following equation 17. Specifically, the outlay for computer-assisted determination of

the dependability degree is disadvantageous because it generally requires an outlay for additions that is proportion to min (2^k, 2^{n-k}). The direct calculation of the dependability degrees and the determination of the digital values dependent on the dependability degrees is thus often not numerically realizable. Approximately 10^{20} additional would be required for what is referred to as the BCH (255, 191) - Code.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

Applicants' also respectfully request that the finality of this Office Action be withdrawn since the Examiner failed to properly consider the Preliminary Amendment filed on November 1, 1999, re-forwarded to the Examiner on June 18, 2003.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 44912-20017000. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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